EXPANSION PROJECT
SWC

1936218 - R8 SEMS

Potential

Redactions

Necessary



February 12, 1990

Mr. Steven W. Carothers SWCA Environmental Consultants 1602 East Ft. Lowell Road Tucson, Arizona 85719

Dear Steven:

Enclosed you will find two copies of the Letter of Authorization. Please sign both copies and return them to us for signature. We will then send you a fully executed copy of the letter for your files.

If you have any questions, please do not hesitate to call David Stensby or me.

Sincerely,

Brohm Mining Corporation

Rex L. Óutzen General Manager

RLO/rrl enc:



February 7, 1990

Dr. Steven W. Carothers SWCA, Inc. Environmental Consultants 804 North Beaver Flagstaff, AZ 86001

RE: Letter of Authorization

Dear Dr. Carothers:

In accordance with the terms and conditions of that certain Professional Services Agreement dated December 28, 1989 (hereinafter "Agreement") between SWCA, Inc. and BROHM MINING CORPORATION ("BROHM"), the environmental consulting services of your firm will be required for a period not to exceed 20 billable days; if additional days are required an additional Letter of Authorization shall be issued. This letter does not authorize any additional compensation beyond that of the phases one and two total of \$33,605.00 (See Exhibit A). Said consulting services shall be commenced on or about February 12, 1990.

I. BROHM'S REPRESENTATIVE(S)

BROHM's Representatives shall be:

Jerry Boyer

II. SCOPE OF SERVICES

The specific environmental consulting services to be performed are as follows:

The following scope of work has been developed to address the issues and concerns raised during scoping meetings held at Brohm's corporate office on 5 December 1989 and attended by SWCA, Inc., Brown and Associates, and representatives of Brohm Mining Corp. This scope of work has been designed to provide SWCA with site specific knowledge and information required to:

a) develop suitable land-use and recreation management plans for the proposed lake and adjoining lands; b) develop off-site mitigation programs which would provide socio-economic and environmental benefits to the northern Black Hills community; and c) evaluate appropriate land trade alternatives which would benefit the Forest Service and prove agreeable to the Black Hills environmental community. To accomplish the goals established during the initial scoping meeting, three project

Dr. Steven W. Carothers February 7, 1990 Page 2

phases have been identified. Phase One, Discovery, will allow SWCA to become familiar with all aspects of the project which have the potential of impacting or directing the lake reclamation concepts. Phase Two, Mitigation Concept Development, will include development and evaluation of lake, recreation, and land use alternatives; off-site mitigation; and land trade alternatives. Upon completion of this phase of the project, the results of SWCA's evaluation and recommendations will be presented to Brohm Mining in a comprehensive report. The final phase of the project, Public Presentation, includes public presentations made by SWCA as a component of Brohm's upcoming public relations campaign.

Phase One. Discovery

SWCA, Inc. will review existing data associated with reclamation and subsequent use of the open pit area including surface water, groundwater, and geologic investigations. During the discovery period, SWCA anticipates meeting with members of Brohm's Technical Advisory Team (TAT). SWCA is not a geotechnical firm, the purpose of these evaluations is to delineate the range of lake management, recreation, and land-use opportunities available for pit reclamation. Concurrent with the review of project information, SWCA will also evaluate potential consequences associated with the development of enhanced recreation use concepts, implementation of off-site mitigation alternatives, and the potential pursuit of trade programs to the Gilt Edge Expansion EIS currently in the process. As currently conceived, this evaluation will involve consultation with Brohm Mining, members of the TAT, and ENSR. While only a small part of this scope, the evaluation of impacts to the EIS is important from a budgetary and public relations perspective.

Phase Two. Mitigation Concept Development

Task 1. Lake, Recreation and Land Use Concept Plan.

A concept plan will be prepared based upon the data evaluation and direction provided by Phase One. The Lake, Recreation, and Land Use Concept Plan will be based upon a feasibility evaluation of alternative lake uses. The determination of highest and best use for the lake will then drive development of the remaining components of the concept plan. The concept plan will be comprised of four elements: a) lake recreation carrying capacity and recreation needs and facilities evaluaton, b) land-use concept plan for lake shore and adjacent forested and reclaimed areas, c) management concepts for developed and undeveloped recreation areas, and d) fisheries, wildlife, and habitat management concepts for the lake, wetland, and riparian habitat.

Dr. Steven W. Carothers February 7, 1990 Page 3

The concept plan will be general enough to provide Brohm with the flexibility required during early stages of pit design. However, the Lake, Recreation, and Land Use Concept Plan must be specific enough to satisfy appropriate resource agency concerns and to demonstrate to the public Brohm's commitment to an environmentally sound reclamation and mitigation program for the open pit. Final pit design while ultimately dictated by ore reserves will, to a greater or lesser extent, be influenced by the Lake, Recreation, and Land Use Concept Plan.

Task 2. Off-Site Mitigation -- Concept Development.

Off-site mitigation alternatives and their feasibility will be evaluated. A range of alternatives will be developed in close coordination with Brohm Mining personnel, specifically, Mr. Peter Goodwin and Mr. Jerry Boyer. An evaluation of the proposed alternatives will then include preliminary cost estimates, management implications, an assessment of the benefits derived and to whom they will accrue, and a preliminary investigation of the interfaces required for successful implementation. Based upon our analysis, SWCA will make a recommendation regarding the preferred alternative.

Task 3. Land Trade -- Concept Development.

The recent public opinion survey completed by Brohm demonstrated a significant increase in voter support of mining on Forest Service land holdings if those holdings are successfully SWCA will conduct a preliminary survey of property exchanged. suitable for trade to the Forest Service. To maximize the anticipated gain in public support, the land ultimately acquired for exchange should be important from an environmental perspective. A preliminary inventory of private lands within or adjacent to the Black Hills National Forest which are ecologically unique or significant will be prepared. To prepare this inventory it will be essential to contact appropriate resource agencies and special interest groups such as the Audobon Society and The Nature Conservancy. This contact will not be made without the prior approval of Brohm Mining.

III. COMPENSATION AND EXPENSES

The compensation for such environmental consulting services is as stated in Exhibit A of the Agreement.

Dr. Steven W. Carothers February 7, 1990 Page 4

IV. NON DISCLOSURE AND OWNERSHIP OF WORK PROJECT

Pursuant to the Agreement, subparagraph 3 of Section X similarly titled as this section, Consultant shall not within two (2) years from the date of this Letter of Authorization acquire, without BROHM's prior written consent, any interest, direct or indirect, in any mining claims, leases, prospecting or mining rights, or fee lands within the area described as follows:

Sections 3-10, and 15-18 of Township 4 North, Range 4 East; Sections 1, 2, 11-14 of Township 4 North, Range 3 East; Sections 26-34 of Township 5 North, Range 4 East; and Sections 25, 26, 35 and 36 of Township 5 North, Range 3 East, Black Hills Meridian, Lawrence County, South Dakota.

Should you have any questions or reason to discuss this Letter of Authorization, please contact BROHM's Representative at the address on this letterhead. Please execute a copy of this letter to acknowledge your receipt of the letter and your agreement to perform the environmental consulting services authorized hereby.

BROHM MINING CORPORATION

Agreed to the 12th day of February, 1990.

Consultant

RO/rrl

Pell, revised to incorporate SW(A

MEETING NOTES

Comments

Brohm Mining Corporation, Deadwood, South Dakota January 15 - 16, 1990

PRESENT: Rex Outzen, Jerry Boyer, Dr. Steven Carothers(1/15), Jim Tress, Ron Borkan, Jim Barron(1/16), Dave Stensby

TOPICS: Preliminary ideas on recreation potential of a pit lake, other recreation-based reclamation concepts, mitigation and land trade concepts, milestones and schedule for deliverables

SWCA presented their preliminary thinking on the recreational potential of pit reclaimed to a lake with high water quality. This would mean water quality suitable for full body contact and capable of supporting some kind of fishery. They concluded their was tremendous wildlife/recreational potential of such a lake, but that it required total confidence in the lake's water quality. Details of the plan include a possible dam to raise the water level above some of the high walls, increasing access, and creation of wetlands habitat on the benches.

The question mark to further development of this plan is the detailed prediction of final water quality in the lake. Adrian Brown is working to supply an answer to this question. Copper may be a problem in achieving suitable quality to support a fishery. SWCA will wait for Adrian Brown's results before finalizing lake wildlife and recreation concepts.

SWCA also was scoped to look at off-site mitigation and land trades for the project. They have anonymously approached the Nature Conservancy to identify environmentally significant lands for acquisition.

SCOPE REFINEMENT, SCHEDULE, AND DELIVERABLES

Dave Stensby will be the point of contact with SWCA. SWCA will continue to look at off-site mitigation opportunities and land trade. They will also add dry pit reclamation alternatives to their scope. They will cease work on the pit lake alternative pending receipt and review of Adrian Brown's water quality predictions by Brohm and SWCA. A dry pit reclamation will likely emphasize wildlife development and de-emphasize recreation. Pit reclamation alternatives will look at a large(90 M Ton) and small pit(60 M Ton)

as currently configured to identify a range of postmining recreational wildlife potentials.

Task 1 - Pit lake/dry pit - recreation/wildlife - reclamation alternatives.

Draft final report by March 2

- both 60 M and 90 M ton pits will be evaluated
- 4 drawings (2 if water quality prevents development of pit lake recreation reclamation alternatives)
- preliminary costs of recreation/wildlife concepts
- · management alternatives and concepts
- all included in draft final report package

Task 1 - Off Site Mitigation - Concept Development Draft final report by February 9, 1990 following original scope.

Task 2 - Land Trade - Concept Development
Draft final report by February 9, 1990 following original scope.



December 27, 1989

Mr. Steven W. Carothers SWCA Environmental Consultants 1602 East Ft. Lowell Road Tucson, Arizona 85719

Dear Steve:

Please find enclosed an executed copy of the contract and Letter of Authorization.

I look forward to working with you.

If you have any questions, please do not hesitate to call $Jerry \ or \ me.$

Sincerely,

Brohm Maning Corporation

Rex L. Outzen General Manager

RLO/dv1

enc:



December 18, 1989

Dr. Steven W. Carothers SWCA, Inc. Environmental Consultants 804 North Beaver Flagstaff, AZ 86001

Letter of Authorization

Dear Dr. Carothers:

In accordance with the terms and conditions of that certain Professional Services Agreement dated December 28, 1989 (hereinafter "Agreement") between SWCA, Inc. and BROHM MINING CORPORATION ("BROHM"), the environmental consulting services of your firm will be required for a period not to exceed 45 billable days; if additional days are required an additional Letter of Authorization shall be issued. Said consulting services shall be commenced on or about January 2, 1990.

Ι. BROHM'S REPRESENTATIVE(S)

BROHM's Representatives shall be:

Jerry Boyer

SCOPE OF SERVICES II.

The specific environmental consulting services to be performed are as follows:

The following scope of work has been developed to address the issues and concerns raised during scoping meetings held at Brohm's corporate office on 5 December 1989 and attended by SWCA, Inc., Brown and Associates, and representatives of Brohm Mining Corp. This scope of work has been designed to provide SWCA with site specific knowledge and information required to: a) develop suitable land-use and recreation management plans for the proposed lake and adjoining lands; b) develop off-site mitigation programs which would provide socio-economic and environmental benefits to the northern Black Hills community; and c) evaluate appropriate land trade alternatives which would benefit the Forest Service and prove agreeable to the Black Hills environmental community. To accomplish the goals established during the initial scoping meeting, three project

Dr. Steven W. Carothers December 18, 1989 Page 2

phases have been identified. Phase One, Discovery, will allow SWCA to become familiar with all aspects of the project which have the potential of impacting or directing the lake reclamation concepts. Phase Two, Mitigation Concept Development, will include development and evaluation of lake, recreation, and land use alternatives; off-site mitigation; and land trade alternatives. Upon completion of this phase of the project, the results of SWCA's evaluation and recommendations will be presented to Brohm Mining in a comprehensive report. The final phase of the project, Public Presentation, includes public presentations made by SWCA as a component of Brohm's upcoming public relations campaign.

Phase One. Discovery

SWCA, Inc. will review existing data associated with reclamation and subsequent use of the open pit area including surface water, groundwater, and geologic investigations. During the discovery period, SWCA anticipates meeting with members of Brohm's Technical Advisory Team (TAT). SWCA is not a geotechnical firm, the purpose of these evaluations is to delineate the range of lake management, recreation, and land-use opportunities available for pit reclamation. Concurrent with the review of project information, SWCA will also evaluate potential consequences associated with the development of enhanced recreation use concepts, implementation of off-site mitigation alternatives, and the potential pursuit of trade programs to the Gilt Edge Expansion EIS currently in the process. As currently conceived, this evaluation will involve consultation with Brohm Mining, members of the TAT, and ENSR. While only a small part of this scope, the evaluation of impacts to the EIS is important from a budgetary and public relations perspective.

Phase Two. Mitigation Concept Development

Task 1. Lake, Recreation and Land Use Concept Plan.

A concept plan will be prepared based upon the data evaluation and direction provided by Phase One. The Lake, Recreation, and Land Use Concept Plan will be based upon a feasibility evaluation of alternative lake uses. The determination of highest and best use for the lake will then drive development of the remaining components of the concept plan. The concept plan will be comprised of four elements: a) lake recreation carrying capacity and recreation needs and facilities evaluaton, b) land-use concept plan for lake shore and adjacent forested and reclaimed areas, c) management concepts for developed and undeveloped recreation areas, and d) fisheries, wildlife, and habitat management concepts for the lake, wetland, and riparian habitat.

Dr. Steven W. Carothers December 18, 1989 Page 3

The concept plan will be general enough to provide Brohm with the flexibility required during early stages of pit design. However, the Lake, Recreation, and Land Use Concept Plan must be specific enough to satisfy appropriate resource agency concerns and to demonstrate to the public Brohm's commitment to an environmentally sound reclamation and mitigation program for the open pit. Final pit design while ultimately dictated by ore reserves will, to a greater or lesser extent, be influenced by the Lake, Recreation, and Land Use Concept Plan.

Task 2. Off-Site Mitigation -- Concept Development.

Off-site mitigation alternatives and their feasibility will be evaluated. A range of alternatives will be developed in close coordination with Brohm Mining personnel, specifically, Mr. Doug Stewart, Mr. Peter Goodwin, and Mr. Jerry Boyer. An evaluation of the proposed alternatives will then include preliminary cost estimates, management implications, an assessment of the benefits derived and to whom they will accrue, and a preliminary investigation of the interfaces required for successful implementation. Based upon our analysis, SWCA will make a recommendation regarding the preferred alternative.

Task 3. Land Trade -- Concept Development.

The recent public opinion survey completed by Brohm demonstrated a significant increase in voter support of mining on Forest Service land holdings if those holdings are successfully SWCA will conduct a preliminary survey of property exchanged. suitable for trade to the Forest Service. To maximize the anticipated gain in public support, the land ultimately acquired for exchange should be important from an environmental perspective. A preliminary inventory of private lands within or adjacent to the Black Hills National Forest which are ecologically unique or significant will be prepared. this inventory it will be essential to contact appropriate resource agencies and special interest groups such as the Audobon Society and The Nature Conservancy. This contact will not be made without the prior approval of Brohm Mining.

III. COMPENSATION AND EXPENSES

The compensation for such environmental consulting services is as stated in Exhibit A of the Agreement.

Dr. Steven W. Carothers December 18, 1989 Page 4

IV. NON DISCLOSURE AND OWNERSHIP OF WORK PROJECT

Pursuant to the Agreement, subparagraph 3 of Section X similarly titled as this section, Consultant shall not within two (2) years from the date of this Letter of Authorization acquire, without BROHM's prior written consent, any interest, direct or indirect, in any mining claims, leases, prospecting or mining rights, or fee lands within the area described as follows:

Sections 3-10, and 15-18 of Township 4 North, Range 4 East; Sections 1, 2, 11-14 of Township 4 North, Range 3 East; Sections 26-34 of Township 5 North, Range 4 East; and Sections 25, 26, 35 and 36 of Township 5 North, Range 3 East, Black Hills Meridian, Lawrence County, South Dakota.

Should you have any questions or reason to discuss this Letter of Authorization, please contact BROHM's Representative at the address on this letterhead. Please execute a copy of this letter to acknowledge your receipt of the letter and your agreement to perform the environmental consulting services authorized hereby.

BROHM MINING CORPORATION

By.

Agreed to the 28th day of December, 1989.

Steven W Carothers

MN/dv1

PROFESSIONAL SERVICES AGREEMENT (BROHM MINING CORP.)

PROFESSIONAL SERVICES AGREEMENT (hereinafter "Agreement"), entered into as of the 28th day of December, 1989, is between SWCA INC. ENVIRONMENTAL CONSULTANTS, hereinafter "Consultant", address called whose is 804 North Beaver, Flagstaff, 86001, and BROHM MINING CORPORATION, Arizona hereinafter called "BROHM", whose address is P.O. Deadwood, South Dakota 57732.

BROHM requires the services of an environmental consultant.

Consultant represents that he is qualified and desires to perform the services required by BROHM.

NOW THEREFORE, for and in consideration of the foregoing the mutual promises and covenants hereinafter set forth, the parties hereto agree as follows:

I. BROHM'S REPRESENTATIVE(S)

- BROHM's Representative(s) for each project shall be designated in the individual Letter(s) of Authorization.
- BROHM may, by a notice in writing signed by BROHM's General appoint additional or substitute Representative(s).

II. SCOPE OF SERVICES

- Consultant shall perform pursuant to the terms and of this Agreement the environmental consulting conditions services as set forth in a separate Letter of Authorization and Consultant. The individual Letter(s) of bу are incorporate into this Agreement by this Authorization reference.
- All services performed by Consultant under this Agreement shall be in accordance with Letter(s) of Authorization instructions to Consultant from BROHM's written Representative(s). The Letter(s) of Authorization and instructions shall more particularly describe the services to be performed, and shall specify the place of performance, the date of performance, the date of completion, and the maximum number of days of services to be performed.

Initials for BROHM

Initials for Consultant $\,$

- 3. Consultant shall engage in discussions authorized BROHM personnel. especially with regard interpretation of data or findings developed or made while performing services under this Agreement.
- Upon the request of BROHM's Representative(s), Consultant shall prepare and deliver to BROHM progress reports and a final report of his findings and recommendations, and such other reports or writings as BROHM may from time request.

COMPENSATION AND EXPENSES III.

- Compensation for services performed under according to the schedule set Agreement shall be forth in Exhibit A attached hereto and made a part hereof. Except as otherwise provided in Exhibit A, all amounts shall be in United States dollars.
- Such compensation shall include all overhead and all 2. profit.
- In addition to compensation for services, BROHM shall reimburse Consultant for all reasonable and necessary expenses actually incurred by Consultant, including mileage and travel Transportation and subsistence costs shall be paid by expenses. BROHM except when Consultant is at his place of business in Tucson or Flagstaff, Arizona. Complete and accurate records of and expenses shall be kept by Consultant and shall be subject to audit by BROHM using generally accepted accounting and auditing procedures.
- Except as otherwise provided in Exhibit A, Consultant and submit to BROHM on a calendar month basis a shall prepare The statement shall set forth detailed statement of charges. number days or fractions of days of services performed of locations performance, and shall be the dates and of receipts other evidence substantiating accompanied bv or Statements shall be directed to Brohm Mining expenses incurred. P.O. Box 485, Deadwood, South Dakota 57732, Attn: Corporation, Subject to verification by BROHM, payments of Bover. amounts due less any existing set-offs shall be made by BROHM within thirty (30) days after receipt of such statements.

Initials for BROHM

Initials for Consultant _ &

IV. AGREEMENT DURATION

- This Agreement shall commence on the date hereof and in effect through December 31, 1990, unless sooner Ъe terminated. If Consultant is engaged in the performance of particular project services for а under a letter of authorization at the expiration date, then this Agreement shall extend for a period of thirty (30) days from the stated expiration date or until completion of such project, whichever date shall first occur.
- Either party may terminate this Agreement upon five written notice to the other party at the addresses days' (5) listed above. Upon notification of such termination SWCA will, at the direction of Brohm Mining Corp., complete a report which summarizes the work completed to date. The cost for report preparation will be based upon the fee structure established in Exhibit A, Compensation A.1.d and A.2., mutually agreed to and paid upon delivery.

COMPLIANCE WITH STATE AND FEDERAL LAWS

Consultant shall comply with all requirements of any applicable federal, state, or local law, rule or regulation. represents that he has all licenses or other Consultant required to enable him to perform services authorizations hereunder in the state or country where the services are to be performed.

VI. INDEPENDENT CONTRACTOR

Consultant is and shall be in the performance of all services, and activities under this Agreement an independent contractor. Consultant shall not in any way at any time be an employee or agent of BROHM, and shall not indicate or represent to any third party that Consultant is an employee or agent of BROHM. Consultant shall have no power to commit BROHM to any third party.

PROFESSIONAL RESPONSIBILITY

Consultant agrees that he will provide in connection with the work requested under this Agreement the standards of care, diligence normally provided and bу competent in the performance of services in respect to work professionals similar to that contemplated by this Agreement.

Initials for BROHM

Initials for Consultant SW

VIII. HOLD HARMLESS

Consultant agrees to defend, indemnify, and hold BROHM, its affiliated and subsidiary companies and their employees, harmless against all costs, loss, or damage (including attorneys' fees) arising directly or indirectly out of the services to be performed by Consultant hereunder, except only claims arising out of accidents resulting from the sole negligence of BROHM.

IX. INSURANCE

1. To protect BROHM against liability for damage, loss, or expense arising from damage to property or injury or death of any person or persons, arising in any way out of, in connection resulting from the work provided for hereunder, with orshall, during the progress of the work, carry, at its Consultant on forms and in reliable insurance companies expense, selected by Consultant and acceptable to BROHM, and authorized business in the state or area in which the work is to be (or other insuring entity performed hereunder as called for herein), the following minimum insurance coverage:

Worker's Compensation Insurance:

- A. Consultant shall meet and maintain compliance with the state laws which govern establishment and maintenance of Worker's Compensation Insurance and Occupational Disease Insurance by whichever of the following methods as such laws require:
 - (a) Obtaining Worker's Compensation including Occupational Disease Insurance as required by law and Employer's Liability Insurance with limits of not less than Five Hundred Thousand Dollars (\$500,000) for injuries to or death of more than one person resulting from any accident or occupational disease covering all work places involved in this Agreement.
 - (b) Obtaining and maintaining Worker's Compensation and Occupational Disease Insurance from the insuring entity of the state whose laws apply to the work performed by Consultant under this Agreement.

Initials	for	BROHM	Rue
Initials	for	Consultant	

- Comprehensive General Liability Insurance, В. including Premises/Operations, Contractual, Products/Completed operations and Contractors's contingent liability with respect to subcontractors, with Bodily Injury Liability limits of One Million Dollars (\$1,000,000) for injury or death resulting from any one occurrence, and Property Damage Liability limit of not less than One Million Dollars (\$1,000,000) per occurrence, including damage to BROHM's property.
- Automobile Liability Insurance, including all C. nonowned, hired, rented, or owned equipment, with Bodily Injury Liability limit of not less than One Million Dollars (\$1,000,000) for injuries to or death of any one person and not less than One Million Dollars (\$1,000,000) for injuries to or death of more than one person resulting from any one occurrence, and Property Damage Liability limit of not less than One Million Dollars (\$1,000,000) per occurrence.
- All policies providing coverage hereunder shall contain provisions that (i) no cancellation or material changes in the policies shall become effective except on thirty (30) written notice thereof to BROHM, and (ii) the insurance companies will have no right of recovery or subrogation against BROHM, its divisions, affiliates, or subsidiary companies, it being the intention of the parties that the insurance so effected shall protect all parties, and the Consultant's carrier be liable for any and all losses covered by the above-described insurance.
- deductibles in the above-described 3. Any and all insurance policies shall be assumed by, for the account of and at Consultant's sole risk.
- Consultant shall secure and deliver to BROHM, prior execution of this Agreement, certificates evidencing insurance coverages of the types and limits provided for force and effect. If requested by BROHM, above are in full Consultant shall furnish to BROHM's legal counsel certified copies of all such policies.
- When requested by BROHM, Consultant shall furnish, or 5. to be furnished to BROHM's legal counsel in the manner cause above provided, certificates of insurance coverage for each subcontractor in minimum amounts deemed necessary by Consultant subcontractor. Should cover the work of the particular insurance requirements for a subcontractor be less than the minimum requirements for Consultant, as set out above, BROHM at its option require Consultant to secure such minimum coverage.

Initials for BROHM

Initials for Consultant The

- Failure to secure the insurance coverages, or the comply fully with any of the insurance provisions of Agreement, or the failure to secure such endorsements on policies as may be necessary to carry out the terms and provisions of this Agreement, shall in no way act to relieve Consultant from the obligations of this Agreement, anything in to the contrary notwithstanding. In the event Agreement that liability for any loss or damage be denied by the underwriter or underwriters for any other reason, Consultant fails to maintain any of the insurance herein will hold harmless, defend and indemnify required. Consultant BROHM against a 1 1 losses, claims, demands, and expenses, including attorney's fees, which would otherwise be covered by said insurance.
- In the event BROHM should desire any other type of 7. insurance during the Operations, such insurance shall be provided by Consultant with such firm or firms as BROHM may direct and BROHM shall be named on the policy as an additional and the Agreement terms shall be adjusted by an amount equal to the cost of such insurance.
- Notwithstanding other provision of 8. any insurance protection afforded BROHM under this Agreement, the inure to the benefit of BROHM and all of its shall and affiliated companies; and when so requested by subsidiary shall furnish certificates of insurance Consultant showing such subsidiary and affiliated companies as insured.

NONDISCLOSURE AND OWNERSHIP OF WORK PRODUCT Χ.

- Consultant shall not, without the prior written the fact that BROHM and Consultant οf BROHM, disclose have entered into this Agreement.
- All reports, publications, exhibits, films, data, conclusions, and other work product furnished by BROHM to obtained or developed by Consultant under this Consultant or all information regarding BROHM's business plans, Agreement and operations, properties, practices, methods, inventions, shall be and remain the property of BROHM, and the discoveries be kept confidential by Consultant, who shall not same shall same to any third person directly or indirectly disclose the except upon the prior written consent of BROHM. this Agreement or upon the prior request of termination of Consultant will deliver such work product and information to BROHM.

Initials for BROHM

Initials for Consultant &

- Consultant shall not, within the period stated in the individual Letter(s) of Authorization, acquire any interest, direct or indirect, in any mining claims, leases, mining rights, lands in the area specified in that letter of without BROHM's prior written consent. authorization interest acquired in violation of this paragraph shall, at BROHM's request and at no cost to BROHM, be conveyed to BROHM. shall not, within the period mentioned in the Letter(s) of Authorization perform consulting services for any third person relating to the area described without BROHM's prior written consent.
- Consultant will promptly disclose and assign to BROHM, free from any obligation to Consultant, every invention, process, apparatus, or design that Consultant, individually or jointly, may invent, discover, conceive, or originate during the term of this Agreement in connection with the services performed by Consultant hereunder.
- Consultant will fully cooperate with BROHM applying for and securing in the name of BROHM patent or patents with respect to the disclosed discoveries in each country in which BROHM may desire to secure patent protection. Consultant will promptly execute all proper documents presented to him for signature by BROHM to enable BROHM to secure such patent protection and to transfer legal title therein, together with any patents that may be issued thereon, to BROHM.

XI. AMENDMENT

This Agreement may only be amended in writing, signed by each party hereto.

XII. ASSIGNMENT

Neither this Agreement nor any payments due to Consultant shall be assigned nor shall any services provided for herein be subcontracted by Consultant without first obtaining BROHM's written consent.

XIII. BINDING EFFECT

The terms of this Agreement shall apply to and be binding upon the successors and permitted assigns of the respective parties hereto.

Initials for BROHM

Initials for Consultant &

XIV. ENTIRE AGREEMENT

This Agreement constitutes the entire Agreement between the parties with respect to the subject matter hereof.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

SWCA ENVIRONMENTAL CONSULTANTS

Stern W. Carothers

BROHM MINING CORPORATION

ву

TITLE

Initials for BROHM

Initials for Consultant

Rea

EXHIBIT A

I. COMPENSATION

The parties agree that the following compensation schedule apply to the Agreement between SWCA ENVIRONMENTAL shall CONSULTANTS ("Consultant") and BROHM MINING CORPORATION ("BROHM") dated December 28, 1989.

- A. Fees
- 1. Professional Fees, by Phase and Task are presented below. Costs are based upon the daily fee structure outlined in A.1.d.
 - a. Phase One: Discovery
 - b. Phase Two: Mitigation Planning

Task 1. Lake, Recreation, & Land Use Concept

Task 3. Land Trade-Concept Development



PHASES ONE AND TWO TOTAL

- c. Phase Three. Meetings and Presentations--Time & Materials
- d. Daily Billing Rate. Professional & Clerical Staff

Dr. Stephen W. Carothers (Principal-In-Charge) (1) (4)

Mr. James A. Tress (Project Manager)

Mr. Ron Borkan (Recreation Mgmt. Specialist)

Dr. Scott Mills (Biologist)

Mr. Mark Ramming (Land-Use Planner)

Graphics

Word Processing

2. Direct Expenses

Expenses for travel, per diem, materials, long distance phone calls, fax, reproductions, express mail, etc. shall be billed at cost plus 15 percent for handling.

3. Payment

For Phases One and Two, outlined in the attached Scope of Work, Brohm Mining Corp. agrees to pay, to SWCA, Inc., 20 percent of the estimated professional fees for Phase One and a retainer. SWCA will bill subsequent invoices for Two as One and Two against the balance of the not-to-exceed Phases for Professional Fees established for those phases. The final invoice for Phases One and Two will be billed against the retainer.

Initials for BROHM

Initials for Consultant Suc

Phase Three will be billed time and materials on a monthly basis utilizing the fee structure established in A.1.d. and A.2.

All Invoices shall be submitted on a monthly basis. Brohm agrees to pay SWCA's professional fees and invoices for direct expenses within 30 days of the date of invoice:

B. Termination

This agreement may be terminated by either party upon five (5) days written notice to other party.

C. <u>Brohm Provided Services</u>

- All available surface water, groundwater, geotechnical, and operational data as required for complete alternatives analysis.
- 2. Available base maps, expansion project plans, and artists renderings which depict views of project site from off of the site.

In no event, however, shall the total compensation for professional fees and expenses exceed \$35,000.00, unless provided for in a separate Letter of Authorization signed by both parties.

Initials for BROHM

Initials for Consultant SWC

fue

SCOPE OF WORK

The following scope of work has been developed to address the issues and concerns raised during scoping meetings held at Brohm's corporate office on 5 December 1989 and attended by SWCA, Inc., Brown and Associates, and representatives of Brohm Mining This scope of work has been designed to provide SWCA with site specific knowledge and information required to: a) develop suitable land-use and recreation management plans for the proposed lake and adjoining lands; b) develop off-site mitigation programs which would provide socio-economic and environmental benefits to the northern Black Hills community; and c) evaluate appropriate land trade alternatives which would benefit the Forest Service and prove agreeable to the Black Hills environmental community. To accomplish the goals established during the initial scoping meeting, three project phases have been identified. Phase One, Discovery, will allow SWCA to become familiar with all aspects of the project which have the potential of impacting or directing the lake reclamation concepts. Phase Two, Mitigation Concept Development, will include development and evaluation of lake, recreation, and land use alternatives; off-site mitigation; and land trade alternatives. Upon completion of this phase of the project, the results of SWCA's evaluation and recommendations will be presented to Brohm Mining in a comprehensive report. The final phase of the project, Public Presentation, includes public presentations made by SWCA as a component of Brohm's upcoming public relations campaign.

Phase One. Discovery,

SWCA, Inc. will review existing data associated with reclamation and subsequent use of the open pit area including surface water, groundwater, and geologic investigations. During the discovery period, SWCA anticipates meeting with those members of Brohm's Technical Advisory Team (TAT). SWCA is not a geotechnical firm, the purpose of these evaluations is to delineate the range of lake management, recreation, and land-use opportunities available for pit reclamation. Concurrent with the review of project information, SWCA will also evaluate potential consequences associated with the development of enhanced recreation use concepts, implementation of off-site mitigation alternatives, and the potential pursuit of trade programs to the Gilt Edge Expansion EIS currently in the process. As currently conceived, this evaluation will involve consultation with Brohm Mining, members of the TAT, and ENSR. While only a small part of this scope, the evaluation of impacts to the EIS is important from a budgetary and public relations perspective.

Phase Two. Mitigation Concept Development.

Task 1. Lake, Recreation, and Land Use Concept Plan.

A concept plan will be prepared based upon the data evaluation and direction provided by Phase One. The Lake, Recreation, and Land Use Concept Plan will be based upon a feasibility evaluation of alternative lake uses based upon the review of existing data completed during Phase One. The determination of highest and best use for the lake will then drive development of the remaining components of the concept plan. The concept plan will be comprised of four basic elements: a) lake recreation carrying capacity and recreation needs and facilities evaluation, b) land-use concept plan for lake shore and adjacent forested and reclaimed areas, c) management concepts for developed and undeveloped recreation areas, and d) fisheries, wildlife, and habitat management concepts for the lake, wetland, and riparian habitat.

SWG ENVIRONMENTAL CONSULTANTS

The concept plan will be general enough to provide Brohm with the latitude required during early stages of pit design. However, the Lake, Recreation, and Land Use Concept Plan must be specific enough to satisfy appropriate resource agency concerns and to demonstrate to the public Brohm's commitment to an environmentally sound reclamation and mitigation program for the open pit. Final pit design will, to a greater or lesser extent, be influenced by the Lake, Recreation, and Land Use Concept Plan.

Task 2. Off-Site Mitigation -- Concept Development.

Off-site mitigation alternatives and their feasibility will be evaluated. A range of alternatives will be developed in close coordination with Brohm mining personnel; specifically, Mr. Doug Stewart, Mr. Peter Goodwin, and Mr. Jerry Boyer. An evaluation of the proposed alternatives will then include preliminary cost estimates, management implications, an assessment of the benefits derived and to whom they will accrue, and a preliminary investigation of the interfaces required for successful implementation. Based upon our analysis, SWCA will make a recommendation regarding the preferred alternative.

Task 3. Land Trade -- Concept Development.

The recent public opinion survey completed by Brohm demonstrated the significant increase of voter support for mining on Forest Service land holdings if those holdings are successfully exchanged. SWCA will conduct a preliminary survey of property suitable for trade to the Forest Service. To maximize the anticipated gain in public support, the land ultimately acquired for exchange should be important from an environmental perspective. A preliminary inventory of private lands within or adjacent to the Black Hills National Forest which are ecologically unique or significant will be prepared. To prepare this inventory it will be essential to contact appropriate resource agencies and special interest groups such as the Audobon Society and The Nature Conservancy. This contact will not be made without the prior approval of Brohm Mining.

Phase Three. Public Presentation.

SWCA will assist Brohm's Public Affairs Director in presentation of the "Brohm Story". SWCA's presentation will specifically address the viability and suitability of the mitigation concepts developed during Phases One and Two. Dr. Steven W. Carothers will be SWCA's principal representative during this phase of the project.

TERMS

- A. SWCA agrees to provide the services listed in the Scope of Work upon execution of this agreement and receipt of the retainer outlined in Item 3.C. Client agrees to pay for the services described in the Scope of Work pursuant to the specific conditions listed below.
- B. As time is critical, SWCA can complete Phases One and Two of the Scope of Work outlined above within 55 days of notice to proceed. Final project schedule and significant mile posts will be established upon acceptance of the Scope of Work and notice to proceed.

SWG ENVIRONMENTAL CONSULTANTS

C. Fees

- 1. Professional Fees, by Phase and Task are presented below. Costs are based upon the daily fee structure outlined in C.1.d.
 - a. Phase One: Discovery

s (b) (4)

b. Phase Two: Mitigation Planning

Task I'. Lake, Recreation, and Land Use Concept Plan

Task 2. Off-Site Mitigation -- Concept Development

Task 3. Land Trade -- Concept Development



PHASES ONE AND TWO TOTAL

(b) (4)

c. Phase Three. Meeting's and Presentations

Time & Materials

d. Daily Billing Rate: Professional & Clerical Staff

Dr. Stephen W. Carothers (Principal-In-Charge)

Mr. James A. Tress (Project Manager)

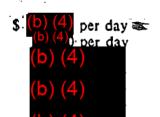
Mr. Ron Borkan (Recreation Management Specialist)

Dr. Scott Mills (Biologist)

Mr. Mark Ramming (Land-Use Planner)

Graphics

Word Processing



2. Direct expenses

Expenses for travel, per diem, materials, long distance phone calls, fax, reproductions, express mail, etc., shall be billed at cost plus 15 percent for handling.

3. Payment

For Phases One and Two, outlined in the attached Scope of Work, Brokm Mining Corp. agrees to pay, to SWCA, Inc., 20 percent of the estimated professional fees for Phase One and Two as a retainer. SWCA will bill subsequent invoices for Phases One and Two against the balance of the not-to-exceed figure for Professional Fees established for those phases. The final invoice for Phases One and Two will be billed against the retainer.

Phase Three will be billed time and materials on a monthly basis utilizing the fee structures established in C.1.d and C.2.

All Invoices shall be submitted on a monthly basis. Brohm agrees to pay SWCA's professional fees and invoices for direct expenses within 30 days of the date of invoice.

SWA ENVIRONMENTAL CONSULTANTS

D. Termination

This agreement may be terminated by either party upon five (5) days written notice to the other party. Upon notification of such termination SWCA will, at the direction of Brohm Mining Corp., complete a report which summarizes the work completed to date. The cost for report preparation will be based upon the fee structure established in C.1.d and C.2, mutually agreed to, and paid upon delivery.

E. Brohm Provided Services

- 1. All available surface water, groundwater, geotechnical, and operational data as required for complete alternatives analysis.
- 2. Available base maps, expansion project plans, and artists renderings which depict views of the project site from off of the site.

KEY PROJECT PERSONNEL

STEVEN W. CAROTHERS Principal

EDUCATION

University of Illinois / Ph.D. / Zoology / 1974 Northern Arizona University / M.S. / Biology / 1969 Northern Arizona University / B.S. / Biology / 1966

> EXPERTISE

Dr. Carothers is an aquatic and terrestrial biologist with over 25 years of experience in ecological research, environmental planning, and management. He has been a long-time advocate of creative solutions for the southwest's environmental problems. His pioneering studies of riparian communities demonstrated the importance of streamside habitats to fish and wildlife. He is presently a member of the U.S.F.W.S. Southern Bald Eagle Recovery Team, North American Riparian Council, Society of Wetland Scientists, and a Fellow in the Arizona-Nevada Academy of Science. He is also an adjunct professor at Northern Arizona University and University of Arizona, a research associate at the Museum of Northern Arizona, and is president and principal-owner of SWCA, Inc.

The diversity of Dr. Carothers' academic and professional experience enables him to work effectively in a wide array of natural resource related disciplines. His specialties include riparian ecology, environmental planning, management of inter-disciplinary study teams, and the formulation of environmental mitigation plans. His experience integrates scientific knowledge with the needs and goals of community developers, recreationists, resource managers, and government agencies. Evaluation of long-term impacts of developments, recreation, and resource utilization on biological communities are of particular interest to Dr. Carothers.

He has served as principal investigator and project manager for environmental assessments, resource inventories, land use planning studies, environmental and human-carrying capacity studies, endangered species assessments, revegetation projects, recreational impact studies, river management plans, and master plans for large developments.

Dr. Carothers has coordinated the consulting efforts of numerous personnel from government agencies including the Army Corps of Engineers, Bureau of Reclamation, Bureau of Land Management, National Park Service, U.S. Forest Service, Soil Conservation Service, and Arizona State Parks.

Dr. Carothers is a prolific author of scientific and popular articles on the wildlife resources of the southwest. A list of publications is available upon request.



JAMES A. TRESS Project Manager/Ecologist

EDUCATION

Arizona State University / M.N.S. / Ecology / 1986 Northern Arizona University / B.S. / Biology-Chemistry / 1981

EXPERTISE

Mr. Tress is an ecologist and environmental planner with a broad range of experience in resource assessment, land use planning, and project management. He has participated in long-term monitoring programs of plant and soil resources near a nuclear power plant, studied plant community responses to disturbance, conducted endangered species surveys, and participated in and/or directed the preparation of numerous environmental assessments. Mr. Tress has a broad computer background which includes modeling, statistical analysis, and database management.

Most recently, Mr. Tress has participated in the preparation of an integrated lake and mine spoil reclamation program, managed preparation and publication of an environmental evaluation for a potential uranium mine in northern Arizona, and completed resource management and environmental review for a strategic planning program for Homestake Mining Company in South Dakota. As project manager, Mr. Tress oversaw the completion of preliminary site planning and architectural concept development for the Homestake Natural History and Cultural center and the Spearfish Canyon Homeowners Association CC&R's. He has produced a technical manual on native tree relocation techniques, has prepared numerous native plant preservation and revegetation plans and has conducted numerous endangered species surveys.

Mr. Tress has developed SWCA's computer aided mapping capabilities and written programs to automate mapping of archaeological testing and site location data. He has utilized computer aided mapping for various projects including native vegetation preservation plans, riparian and wetland revegetation designs, archaeological artifact density and distribution maps, and plant community maps.

DEC-12-89 THE 9:58 SMUH INC.

SWA ENVIRONMENTAL CONSULTANTS

RONALD E. BORKAN Recreation Specialist/Computer Specialist

EDUCATION

University of Arizona / M.S. / Renewable Natural Resource Studies / 1986
University of Michigan / B.S. / Natural Resources / 1980

EXPERTISE

Mr. Borkan has over, eight years of experience as a natural resource specialist specializing in outdoor recreation. He has an extensive background in forestry, wildlife, hydrology, planning, policy, resource management, and biology which enables him to effectively integrate multiple resources into a decision-making process. His vast experience in conflict identification and resolution, which so often is required in outdoor recreation management, enables him to effectively work on interdisciplinary research and development projects. In addition, he has extensive knowledge and experience in computer programming and simulation of natural resource applications, as well as database management, statistics, and graphics software packages.

Mr. Borkan has had experience in three units of the National Park Service as an interpretive park ranger, as well as with the U.S. Forest Service and the Bureau of Land Management. He has taught courses in natural history interpretation, photography, and outdoor recreation. He adapted the Wilderness Use Simulation Model to simulate the impacts of Glen Canyon Dam releases on Colorado River boat trips through Grand Canyon National Park. He has assisted on research projects at Grand Canyon involving visitor questionnaires, visitor communications, and computerizing backcountry hiking reservations.

Recent projects which Mr. Borkan has managed include an environmental impact statement for a proposed spur line from Grand Canyon Airport to the South Rim of Grand Canyon National Park; an environmental assessment for an extension of River Road in Tucson; natural resource inventory and analysis and agency issues for private parcels around Lake Pleasant; technical editing and writing of research studies evaluating the impact of Glen Canyon Dam operations on downstream resources; evaluation of wilderness and trails access issues for a private parcel adjacent to Pima Canyon; natural resource inventory, evaluation of agency issues, and a carrying capacity study for Show Low Lake and adjacent lands; recreational opportunities and planning options for a 6,000 acre development adjacent to the Saguaro National Monument; inventory and analysis of vegetation, wildlife, visual, and recreational resources for a parcel of State land north of Tucson; and an environmental assessment for a land exchange for 5,000 acres in Arizona.

DEC-12-89 THE 9:59 SHOA INC.

SWA ENVIRONMENTAL CONSULTANTS

G. SCOTT MILLS Senior Research Scientist

EDUCATION

University of Arizona / Ph.D. / Ecology / 1979 Ohio State University / M.S. / Zoology / 1972 Ohio State University / B.S. / Biology / 1970

EXPERTISE

Dr. Mills is a professional ecologist with 13 years of experience in the southwest. His specialties are the distribution, status, and ecology of fishes, amphibians, reptiles, birds, and mammals. Dr. Mills has also worked extensively with plant community mapping and the relationship between vegetation volume and the distribution and abundance of birds. He has had extensive experience with threatened and endangered species, including determination of their status. He was responsible for the collection and analysis of distribution, population status, and life history information of selected vertebrates in Arizona. Recommendations based on this study were influential in revising the Arizona Game and Fish Department's list of threatened wildlife in Arizona.

Dr. Mills has worked on numerous projects as project scientist and manager. Major projects include collection and analysis of data on terrestrial wildlife for the Upper Gila Water Supply project and principal authorship of the concurrent fisheries report; development of Habitat Suitability Index models for selected vertebrates; vertebrate surveys and development of the planting design for the Mittry Lake revegetation area; terrestrial ecology of bankline modifications along the Lower Colorado River; transplantation of <u>Tumamoca macdougalii</u>, a federally-endangered species; impact and mitigation analyses for private sector development projects; surveys and Section 7 consultations for Desert Tortoise and endangered species; and surveys for Spotted Owls.

C. MARK RAMING Environmental Planner

EDUCATION

Utah State University / M.L.A. / Landscape Architecture / 1981 Indiana University / B.S. / Biology / 1975

EXPERTISE

Mr. Raming has over 11 years of experience in environmental analysis, planning and design. As an Environmental Planner for SWCA, he has applied indepth expertise in master planning, visual quality analysis, natural resource management, environmental impact mitigation, computerized geographic information system applications, and applied field biology. Mr. Raming's interest in environmental psychology and visual quality management has resulted in the development of several innovative approaches to environmental planning and design including computerized viewshed analysis and land use simulations.

Mr. Raming has been responsible for planning and policy development involving environmentally sensitive sites. He has extensive experience in site planning to minimize visual impacts for housing developments, resorts, wind turbines, transmission lines, and oil wells. He was worked with several communities in developing visual management, solar access, and energy conservation ordinances. The major emphasis Mr. Raming brings to environmental planning projects is the development of a cohesive, environmentally sensitive community that responds to the social and psychological needs of the people who will live, work, and recreate there.

Recent projects Mr. Raming has successfully completed include a visual quality analysis for Arizona's Superconducting Super Collider (SSC) proposal to the Department of Energy; a visual impact analysis for the Los Angeles Wind Power Generation Facility in Los Angeles County; a 400-acre wildlife habitat restoration concept for Lower Rincon Creek in Pima County, Arizona; concept development for a non-profit Environmental Education and Visitor Information Center, affiliated with the Saguaro National Monument to be sponsored and developed by private interests; the revision of the 35,000-acre Rincon Valley Area Plan; and the Specific Plan submittal for the proposed 6,000-acre Rocking K development.

DEC-12-89 TUE 10:00 SNCA INC.

P.11

SWG ENVIRONM

ENVIRONMENTAL CONSULTANTS

RECENT ENVIRONMENTAL ANALYSIS PROJECTS SWCA, Inc.

	• •				
	Project	Mo/Yr	Client	Contact	Telephone No.
•	Sage Environmental Evaluation Coconino Pláteau	11/90	Union Pacific Resources	Mr. Mike Noumann	
	Endangered Species Clearence Drill Pads and Access Roads Coronado National Forest	9/89	A.F. Budge (Mining) LTD.	Mr. John Norby	
	Sanchez Cooper Mine - Archaeological Services Safford Arizona	On-going	Arizona Consultants and Investments	Mr. Fred Brost	
ı	Flagstaff II Land Exchange Environmental Assessment, Poderal Land Exchange, Inc. Flagstaff, Arizona	, on-going	FLEX, Inc. Scottsdale, Arizona	Mr. Norval O. Tyler	(602)045-2601
	Grand Canyon Railroad Environmental Impact Statement Grand Canyon, Arizona	On-going	Grand Canyon Railway	Mr. Robert Roth	(602)635-4476
	Inscription Nouse Environmental Assessment Knibitoo, Arizona	1/89	Bluze Construction	Ms. Carol Smart	(505)247-0336
	Abandoned Mined Land Reclamation Environmental Assessment Second Mess Highwall, Oraibi Highwall, Star Mountain Mine Navajo County, Arlzona		Hopi Tribe	Mr. Perry W. Honani	(602)734-2441
	Black Mesa Vegetation Surveys Kayenta, Arizona	10/88	Peabody Coal Co.	Mr. Chuck LaRue	(602)677-5285
	Glen Canyon Environmental Studies Glen and Grand Canyons Coconino County, Arizona	01/88	Bureau of Reclamation-GCES Western Region	Mr. David Wogner	(801)524-6086
	Cataract Canyon Endangered Species Survey/Electrofishing Grand County, Utah	11/85	Bureau of Reclamation-Salt Lake City	Mr. Reed Harris	(801)588-5498
	Glen Canyon National Recreation Area Grazing Management Study Page, Arizona	06/86	Glen Canyon National Recreation Area, Division of Resource Management	Mr. Larry Belli	(602)645-9672
	Navajo Bridge Biological Survey Report, Environmental Assessment Marble Canyon, Arizona	07/88	Parsons, Brinckerhoff, Quade, Douglas Arizons Department of Transportation	Mr. Mike Davis	(714)973-4880
	Percerine Falcon Studies, Grand Canyon National Park Grand Canyon, Arizona	09/89	Grand Canyon National Park Division of Resource Management	Dr. Peter Rolands	(602)638-7751
	Uranium Mine Site Biological and Cultural Resources Studies and Top Soil Management Plan Coconino County, Arisona	08/88	Union Pacific Resources	Mr. Mike Neumann	(303)721-2415
•	Site Analysis and Ecological Overview of Rocking K Ranch Tucson, Arizona	11/89	The Estes Co.	Mr. Chris Monson	(802)571-0070
	Gorman Wind Generation Facility Environmental Analysis Gorman, Culifornia	11/88	Sierra Delta Corporation	Mr. Robb Eidemiller	(702)734-7144
	Tonto Creek Riparian Habitat Impact Mitigation Program Payson, Arizona	08/89	FnF Construction	Mr. Terry A. Neff	(602)345-7546
	Roosevelt Dam, Power Plant and Transmission Line Modifications Environmental Assessment Gila County, Arizona	07/87	Salt River Project Environmental Services Department	Mr. Glen Harris	(602)230-2881
			<u> </u>		

SWA ENVIRONMENTAL CONSULTANTS

RECENT ENVIRONMENTAL ANALYSIS PROJECTS 8WCA, Inc.

				•
Project	Mo/Yr	Client	Contact	Telephone No.
Terrestrial Ecology of Lower Colorado River Bankfine Modifications , Arizona/California	05/88	Bureau of Reclamation	Mr. David Busch	(702)293 <i>-</i> 8956
•	•	Lower Colorado River Region		
Four Mile Wash Archaeological Data Recovery, Data Recovery at Nine Archaeological Sites Near Tenepah, Arisona	05/88	Headquarters West	Mr. Con Engelhorn	(602)258-1847
Superconducting Super Collider Ecological Analysis-Sierrita Site Tucson, Arizona	04/88	Arizona Department of Commerce	, Mr. Ian A. MacPherson	(602)255-3833
Winslow Cultural Resource Survey Design and Sample Survey of 3,200 Acres of State Lands	04/88	F Bar Cattle Co.	Mr. Dean Flake	(602)530-7115
Winslow, Arizona	•			•
Cultural Resource Environmental Survey of 45,000 Acres of Bureau of Land Man- agement Lands Maricopa/Pinal Countles, Arizona	04/88	Headquarters West, Ltd.	Mr. Con Engelhorn	(602)258-1647
Mittry Lake Revegetation Area I Master				12
Plan and Design Report Arizona	07/85	Bureau of Reclamation Lower Colorado River Region	Mr. Dave Busch	(702)203-8958
Red Lake Environmental Assessment Navajo County, Arizona	01/88	Babbitt Bros. Trading Co. Bureau of Indian Affairs	Mr. Jim Babbit	(602)770-6951
Tangarine Road Biological Survey Preliminary Assessment of Development Pima County, Arizona	11/88	Parsons, Brinckerhoff, Quade, Douglas Arizona Department of Transportation	Mr. Mike Davis	(714)973-4860
Caterpillar Test Facility Section 404 Biological and Cultural Resource Study Green Valley, Arisons	08/88	Cella Barr Associates Army Corps of Engineers	Mr. Don Laidlaw	(602)642-7401
Acacia Hills Endangered Species Survey <u>Tumamoca Macdougalii</u> Avra Valley, Arizona	11/87	The Estes Co.	Mr. Doug Noli	(602)290-0090
Aquafuture Power Line Project, Environ-			•	
mental Assessment, Visual Quality Analysis, Endangered Species Clearances Bakersfield, California	06/86	Aquafuture, Inc.	Mr. Anthony Schurr	(805)303-2550
Archaeological Survey for Coconino Forest Roads Coconino National Forest, Arisona	On-going	U.S. Farest Service	Mr. Peter Pilles	(602)527-7410
San Rafael Transmission Line Project Environmental Assessment Cochise County, Arisona	02/86	AEPCO, Inc.	Mr. Tom Adams	(602)586-3631
Transplantation of <u>Tumamoca Macdougalii</u> Avra Valley, Arizona	03/86	Bureau of Reclamation-Phoenix	Ms. Sherry Barrett	(602)629-5061
Pima County Endangered Plant Survey Tucson, Arizona	10/86	Pima Co. Dept. of Transportation & Flood Control	Dr. Jim Barry	(602)882-2662